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Do you think your match is made in heaven? Teaching styles/learning styles match and mismatch revisited

Zahra Naimie^a*, Saedah Siraj^b, Chua Yang Piaw^c, Reihaneh shagholi^d,
Rana Ahmed Abuzaid^e

^aPhd student, University of Malaya, faculty of Education, 50603 Kuala Lumpur, Malaysia

^bDean, faculty of Education, University of Malaya, 50603 Kuala Lumpur, Malaysia

^cSenior lecturer, University of Malaya, Principalship Studies, 50603 Kuala Lumpur, Malaysia

^dPhd student, University of Malaya, Faculty of Education, 50603 Kuala Lumpur, Malaysia

^ePhd student, University of Malaya, Faculty of Computer Science and Information Technology

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Abstract

The purpose of the study was to explore the impact of teaching and learning style preferences and their match or mismatch on learners' achievement. The sample consisted of 310 English Major Students and four lecturers from the Foreign Languages Faculty of Azad University, Iran. The Index of Learning Styles was used together with observations and interviews to collect data. The results of the study revealed that matching teaching and learning styles in EFL classes can help improve students' achievement.

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Keywords: Learning styles; teaching styles; match and mismatch; achievement.

1. Introduction

In the English as Second Language (ESL) and English as Foreign Language (EFL) classroom, attention has also been paid to teaching and learning strategies based on the belief that, to be effective, ESL/EFL teachers should have knowledge about learners' learning needs, individual differences in learning, the required teaching methods, learners' preferences as well as the necessary teaching materials required to meet learners' needs in the educational setting. More specifically, recently, emphasis has also been paid to teaching and learning styles.

Most of the research on teaching and learning styles has been cross-sectional in nature; many deal with the learning styles of students in higher institutions of learning. Frequently the studies focus on how demographical variables such as gender, age, university major, and personality influence learning styles (Severiens, 1997; Brew,

* Zahra Naimie. Tel.: +60-129274273; fax: +603-7956 5506

E-mail address: z.naimie@gmail.com

2002; Nielsen, 2005). There have also been studies, albeit relatively limited, on the matching and mismatching of teaching and learning styles (Hyman & Rosoff, 1984; Beck, 2001; Zhenhui, 2001).

The findings of past studies (for example, Felder, 1988; Goodwin, 1995; McDonald, 1996) explain that a learner's achievement in any class is determined by factors such as native ability, and the level of congruence between learners' learning styles and teachers' teaching styles. Some studies have also found that congruence (matching) between teaching and learning styles have a positive impact on achievement and satisfaction (Ester, 1994; Felder, 1988; Goodwin, 1995; McDonald, 1996). Matching and mismatching between teaching and learning styles exist in any academic setting, at least to a certain extent. A mismatch is said to occur when students' preferred methods of processing information are not aligned with the teachers' preferred styles of teaching. According to Felder (1988), this can lead to poor performance on the part of the students because the students may become bored and demotivated.

De Vries (2005) advocate that the culture of students can influence their learning. Thus, providing instructors with the necessary information about students' culture and its effects on students' learning style preferences can enable teachers and other instructors such as college professors to incorporate more preferred learning style methods into their teaching. Though a combination of methods should be encouraged (Felder, 1996), it is more important to incorporate preferred styles in order to help improve students' retention and achievement. Felder and Spurlin (2005) states that when mismatches exist between learning styles of most students in a class and the teaching style of the instructor, the students may become bored and inattentive, do poorly on tests, get discouraged about the courses, the curriculum, and themselves, and in some cases change to other curricula or drop out of school.

Universities in Iran are also places in which English is taught in a range of independent fields of study, such as English language and literature, teaching English as a second /foreign language and English translation. The students in these fields are referred to as English Major Students (EMSs). A majority of EMSs in Iran have a certain degree of capability in the use of the English language but there are some students who have low proficiency. Every EMS goes through two years of training that covers general English, which is about the four main skills of reading, listening, writing and speaking. In the next two years, the students focus on their specialized course of study. Some of the learners have problems in grasping the contents and concepts of the course given in English and this seems to be one of the problems that EFL students face in Iranian universities. One possible reason for this is the inability or weaknesses of the students in English language basics. As such, the students may not do well academically. However, even if the students pass their courses, it is not an indication that they have attained an acceptable level of proficiency in English. According to Farhady, Jafarpur and Brijandi (1994), after passing their core courses and graduating, Iranian EFL graduates are found to be still wanting in English language use and its components. The teaching of English is growing so fast in Iran that there is a need to understand the mechanics involved in the teaching and learning of English in Iran. Currently there is a lack of research in this direction; in particular, there is a dearth of research with regard to teaching and learning styles of EFL learners and almost none on the match or mismatch of teaching and learning styles and their impact on achievement.

2. Objectives and Research Questions

The objective of this study was to explore the impact of teaching and learning style preferences and their match or mismatch on learners' achievement in Azad University, Iran. The study is based on the belief that appropriate teaching styles that are aligned with students' learning preferences can improve students' achievement. Previous studies on teaching styles have been reviewed in order to explain the link which may exist between the two variables. This study attempted to answer the following questions:

- 1- What are the teaching styles preferences of EMSs lecturers and learning style preferences of EMSs learners in a university classroom setting in Iran?
- 2- Does the match or mismatch of teaching and learning styles impact on the achievement of EMSs learners in a university classroom setting in Iran?

3. Methodology

3.1. Instrumentation

This study employed a survey method. The survey instrument used was the Learning Styles Index (LSI) developed by Felder and Soloman (2006). Apart from the survey questionnaire, observations and interviews were also used to collect data.

3.2. Sample

The sample consisted of 310 EFL learners from the centre branch of Azad University. The learners were selected randomly from the various courses conducted in English. Four lecturers from the courses were also involved in the study. The lecturers were selected based on their willingness to participate in the study.

4. Results and Conclusions

Students Learning Style Preferences and Comparison in Achievement Scores between Matched Teaching-Learning Styles with Mismatched Teaching-Learning Styles across All Four Dimensions of the Learning Style Pairs (LSP) in the Learning Styles Index (LSI) There are four dimensions in the LSI which are (a) Active/Reflective (LSP1) (b) Sensing /Intuition (LSP2) (c) Visual/Verbal (LSP3) and (d) Global/Sequential (LSP4). The results of the study showed that the dominant learning styles of EMS students in Azad University for the LSPs respectively are Active, Sensing, Visual and Global.

In order to determine the impact of match and mismatch of teaching and learning styles on students' achievement, learners were categorized into five groups. The recoded variable was called Match. For learners, whose learning styles matched their teachers' teaching styles across all four LSPs, Match = 4, indicating that their learning styles had a perfect match with their teacher's teaching styles across all the four LSPs. Similarly, if a learner matched his or her teachers' learning style in three of the four LSPs, the learner was categorized into Match group 3, indicating that the learner matched his or her teacher's teaching style in three of the four LSPs. If there was complete mismatch between a learner's learning style and his or her teacher's teaching style across all four LSPs, the learner was categorized into Match group 0. Based on the categorization above, there were five groups under the variable Match. A one-way analysis of variance (ANOVA) was performed to determine if there were significant differences between the groups in the achievement scores. The means and standard deviations of the achievement scores for the five groups are as shown in Table 1. Table 2 shows the results of the one-way ANOVA. Table 3 shows the results of the Tukey HSD post-hoc multiple comparisons.

Table 1: Means and standard deviations of achievement scores for the Match Groups

Dependent Variable	Match Group				
	0	1	2	3	4
Achievement Scores					
Mean	13.47	14.00	14.78	16.79	17.57
S.D.	2.69	3.06	3.35	2.16	1.97
N	18	27	61	136	68

Table 2: One-way analysis of variance on achievement scores for the Match Groups

Dependent Variable	Source	Sum of Squares	df	Mean Square	F	p
Achievement Scores	Between gps	562.04	4	140.51	22.22	0.00*
	Within gps	1928.41	305	6.32		
	Total	2490.45	309			

*significant at $p < 0.05$

Table 3: Tukey post-hoc comparisons on achievement scores for the Match Groups

Dependent Variable	(I) GROUP	(J) GROUP	Mean Difference (MD) (I-J)	<i>p</i>
Achievement Scores	Match Group 0	Match Group 1	-0.53	0.96
		Match Group 2	-1.31	0.30
		Match Group 3	-3.32	0.00*
		Match Group 4	-4.10	0.00*
	Match Group 1	Match Group 2	-0.78	0.66
		Match Group 3	-2.79	0.00*
		Match Group 4	-3.57	0.00*
	Match Group 2	Match Group 3	-2.01	0.00*
		Match Group 4	-2.79	0.00*
	Match Group 3	Match Group 4	-0.78	0.23

*significant at $p < 0.05$

As can be seen from Table 1, the mean achievement scores for Match Groups 0, 1, 2, 3 and 4 are 13.47, 14.00, 14.78, 16.79 and 17.57 respectively. The results of the one-way analysis of variance, as can be seen from Table 2, showed a significant difference in the means, $F(4,305)=22.22$, $MSE=6.32$, $p=0.00$. Post-hoc multiple comparisons using the Tukey HSD tests showed significant differences between Match Group 0 with Match Groups 3 and 4, MD (Mean Difference)=-3.32, $p=0.00$ and $MD=-4.10$, $p=0.00$ respectively. Significant differences were also recorded for Match Groups 1 and 2 with both Match Groups 3 and 4. However, no significant differences in achievement were found amongst Match Groups 0, 1 and 2 or between Match Groups 3 and 4. The results indicate that Match Groups 3 and 4 outperformed the other Match Groups in achievement scores but their performance did not differ from each other. In short, the results imply that generally if teaching styles are matched to learning styles, achievement of students will be significantly better perhaps up to a point. The results in this study are consistent with those in past studies (for example, Ester, 1994; Felder, 1988; Goodwin, 1995; McDonald, 1996) where it was found that when teaching and learning styles are matched for individual LSPs, performance would be much better than if they were not. The results of this study revealed that connecting learning styles and teaching styles in EFL classes in Azad University plays an important role in student's achievements.

5. Implication

Instructors must first be aware that they have the power to widen their teaching styles in ways that can meet the versatility of their students' learning style preferences. This is so that their students' achievement can be enhanced. EFL/ESL methodologies have long been a leader in teaching methodologies used in other fields. EFL instructional practice can inform educators teaching in fields other than EFL about the effective ways to teach EFL or any other field. Given that students are studying in a context in which EFL is the medium of instruction, all classes at Azad University (different faculties) from social sciences to natural sciences could benefit from using, at least to some degree, EFL methodologies such as altering teaching styles to reach a wider variety of learning styles by attending to the preferences of students. Findings from this study should serve as a glimpse into the process of how instructors can begin to improve the quality of education they provide in the practical sense. As the participants of this study demonstrated, the concept of learning style preferences in their EFL context is relatively new. The fact that students learn in different ways and the possibility that instructors can adapt their instructional modes has come both as a surprise and a relief to many educators at Iran. Results of the case studies revealed that instructors commonly fear about the idea of accommodating students' learning style preferences that might be impractical in their context given the large class sizes; lack of resources, etc. However, the results of this study revealed that students indicated students positive reaction towards their versatility needs to be met through the lecturers conducting different teaching styles.

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